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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,559	10/12/2001	Pradip Mitra	10919/25501	1434
29937 7:	590 12/13/2004		EXAMINER	
SIDLEY AUSTIN BROWN & WOOD LLP			LEE, SHUN K	
717 NORTH HARWOOD SUITE 3400			ART UNIT	PAPER NUMBER
DALLAS, TX	75201		2878	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

			AV
	Application No.	Applicant(s)	
Advisory Action	09/976,559	MITRA, PRADIP	
Before the Filing of an Appeal Brief	Examiner	Art Unit	
	Shun Lee	2878	
The MAILING DATE of this communication appe	ears on the cover sheet with the c	orrespondence add	ress
THE REPLY FILED 15 November 2004 FAILS TO PLACE THIS	S APPLICATION IN CONDITION F	OR ALLOWANCE.	
 The reply was filed after a final rejection, but prior to filing must timely file one of the following replies: (1) an amend condition for allowance; (2) a Notice of Appeal (with appe Examination (RCE) in compliance with 37 CFR 1.114. The The period for reply expires 4 months from the mailing date b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire better the period for reply expire bett	ment, affidavit, or other evidence, wal fee) in compliance with 37 CFR 4 e reply must be filed within one of the of the final rejection. Advisory Action, or (2) the date set forth	hich places the applic 41.31; or (3) a Reques the following time perion in the final rejection, which	cation in st for Continued ods: chever is later. In
Examiner Note: If box 1 is checked, check either box (a) or (MONTHS OF THE FINAL REJECTION. See MPEP 706.07((b). ONLY CHECK BOX (b) WHEN THE		
Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period of ex under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office later may reduce any earned patent term adjustment. See 37 CFR 1.704(b) NOTICE OF APPEAL	tension and the corresponding amount of shortened statutory period for reply origing than three months after the mailing date	of the fee. The appropria nally set in the final Offic	ate extension fee e action; or (2) as
2. The reply was filed after the date of filing a Notice of Appel was filed on A brief in compliance with 37 CFR 4. Appeal (37 CFR 41.37(a)), or any extension thereof (37 Chas been filed, any reply must be filed within the time per AMENDMENTS	1.37 must be filed within two month CFR 41.37(e)), to avoid dismissal of	s of the date of filing the	he Notice of
3. The proposed amendment(s) filed after a final rejection, to (a) They raise new issues that would require further co (b) They raise the issue of new matter (see NOTE below (c) They are not deemed to place the application in be appeal; and/or (d) They present additional claims without canceling a NOTE: See Continuation Sheet. (See 37 CFR 1.1)	onsideration and/or search (see NO ow); etter form for appeal by materially re corresponding number of finally rej	TE below);	
4. The amendments are not in compliance with 37 CFR 1.12		mpliant Amendment (PTOL-324).
 5. Applicant's reply has overcome the following rejection(s): 6. Newly proposed or amended claim(s) would be all non-allowable claim(s). 	•		
7. For purposes of appeal, the proposed amendment(s): a) the new or amended claims would be rejected is provided. The status of the claim(s) is (or will be) as follows: Claim(s) allowed: Claim(s) objected to: Claim(s) rejected: 1-54. Claim(s) withdrawn from consideration:	☑ will not be entered, or b)□ will b d below or appended.	e entered and an expl	anation of how
AFFIDAVIT OR OTHER EVIDENCE			,
 The affidavit or other evidence filed after a final action, but because applicant failed to provide a showing of good an was not earlier presented. See 37 CFR 1.116(e). 	d sufficient reasons why the affidav	it or other evidence is	necessary and
Q The affidavit or other evidence filed after the date of filing	a Notice of Appeal, but prior to the	date of filing a brief v	vill not be

REQUEST FOR RECONSIDERATION/OTHER 11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1). 10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a

12. Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s).

13. Other: ____

CONSTANTINE HANNAHER PRIMARY EXAMINER **GROUP ART UNIT 2878**

Application No. 09/976,559

Continuation of 3. NOTE: the proposed amendment raises new issues that would require further consideration and/or search. For example, it is unclear if "the doped region" is referring to the patterned doping layer or other claim elements.

Continuation of 11, does NOT place the application in condition for allowance because: examiner respectfully disagrees with applicant's arguments that Cockrum et al. does not disclose forming a patterned doping layer above the passivation layer and driving dopant from the patterned doping layer into the radiation absorption layer to form a doped region since Cockrum et al. state (column 6, lines 15-62) "Referring to FIGS, 4a-4k there is illustrated another method of the invention which forms by a diffusion process p-n diode junctions which lie under the passivation layer 18. Steps 4a-4c are substantially the same as steps 3a-3c above. In step 4d portions of the passivation layer 18 are selectively removed through the openings within mask layer 26. This step of selectively removing may be accomplished by the aforementioned wet chemical etch such that the underlying p-type substrate is not converted to n-type. In step 4e a relatively thin source layer 30 of a suitable n-type dopant is deposited over the surfaces of the photoresist layer 26 and the surfaces exposed within the openings. For example, the source layer 30 may comprise indium and may have a thickness of approximately 100 angstroms. FIG. 4f shows the structure after the photoresist layer is removed, thereby rejecting the overlying source layer 30 except where it contacts the layer 12 and the exposed surfaces of the passivation layer 18. A heating process is thereafter performed which diffuses indium from the source layer 30 into the p-type layer 12, thereby converting the p-type material and forming the diffused n-type regions 14a and 14b. As can be seen in FIG. 4g, diffused the n-type regions 14a and 14b extend laterally outwards and the resultant p-n junctions underlie the passivation layer 18. FIG. 4h shows a second photomask layer 26a which is applied by a conventional method such that it overlies the passivation layer 18. The steps illustrated in FIGS. 4i through 4k are substantially the same as FIGS. 3e through 3g, described above, wherein contact metallization and ground metallization are provided with the second and third mask layers. As described above, the mask layer 26 is removed in step 4f before the step of diffusing is accomplished. This is preferable in that the heat applied during the diffusion process may cause a polymerization of the mask layer 26, making the subsequent removal of the layer 26 difficult to accomplish. It can be appreciated that, depending on the type of material which comprises the mask layer 26, the diffusion step may be accomplished before the removal of the mask layer 26". Thus Cockrum et al. teach (column 6, lines 15-62) forming a patterned doping layer (30 in Figs. 4E and 4F) above the passivation layer (18 in Figs. 4B-4K) and driving (i.e., thermally diffusing) dopant from the patterned doping layer (30 in Figs. 4E and 4F) into the radiation absorption layer (12 in Fig. Figs. 4A-44K) to form a doped region (14a or 14b in Figs. 4G-4K).